

type in emphasizing certain phases of the operation and especially in calling attention to the fatal risk so largely lurking in capital operations of the bulbous. The numerous good and instructive diagrammatic illustrations are a distinctive feature of the book. Size and get up deserve nothing but praise; especially commendable in an ophthalmological work is the large and clear type. N.

Erinnerungen und Betrachtungen. Prof. Dr. Heinrich Fritsch. A. Marcus & Co., Weber's Verlag, Bonn, 1913.

The book contains the reminiscences and observations of the well-known veteran German Gynecologist, Heinrich Fritsch, who participated in the Franco-Prussian war of 1870-71 in the capacity of volunteer surgeon, and as such witnessed many engagements of the contesting armies.

We are accustomed to look upon Germany as one of the most progressive countries and as one of the foremost exponents of medicine as a science and art. But while the organization and preparation of the Prussian fighting forces were admirable, we are told by Fritsch that the sanitary measures of the army were, in the beginning of the war, obsolete and totally inefficient. The soldiers' food was qualitatively and quantitatively poor and provisions for good drinking-water were inadequate. Thus the German soldier was, especially at the onset of the cold season, exposed to untold misery. Scant or no provision was made for the care of the wounded after decisive battles. As proof of this Fritsch graphically relates how he was, after the sanguinary battle of Gravelotte, left alone at night in a forest with a large number of wounded soldiers, without water or any means of transportation. Finally he succeeded in having a large number of the gravest cases removed on most rudimentarily improvised stretchers. One of the men, carried in this fashion through the dark forest, died on the road. Before reaching the field-hospital the cortege was in danger of losing more men by being fired upon from their own outposts.

The German army-surgeon, who is still looked upon as a negligible quantity by the commissioned officer, had constantly to advance to the firing line during battles and work amid flying bullets. Probably less dangerous, but certainly more arduous, were his duties in the field-hospital. Surgery was still in its preantiseptic or rather preaseptic era and the majority of soldiers, therefore, were hopelessly sick from blood-poison. One chill was followed by another and uncontrollable hemorrhages precipitated the invariably fatal outcome. Physicians were scarce and those in authority, in many instances, incapable or too old. Fritsch himself who had resigned his assistantship in a gynecological clinic to join the army, keenly felt his lack of surgical training. Left to his own resources and almost alone in charge of a large hospital of over 200 beds, into which regularly over night 20 to 30 new cases were "dumped," which in most instances died without an attempt at a diagnosis, he was often overwhelmed by the weight of his responsibility and at times unhappy and inconsolable on account of his poor therapeutic results. For all the misery caused by chills, blood-poison, hemorrhages, etc., he had, as he puts it, nothing more to offer than the morphin-syringe and his tears.

Fritsch rides through the enemy's country with open eyes, and, while performing his duties with zeal and self-sacrifice, he finds time and opportunity for his observations on the beautiful natural scenery of southeastern France, on camp-life and on many interesting episodes of the great struggle; he gives fascinating descriptions of battles, reliable contributions upon our knowledge of France and

her inhabitants and discusses here and there many questions of medical import. Everywhere the author's good judgment and sound criticism are apparent in the book, the perusal of which will prove to old and young physicians alike, profitable and delightful. M. K.

The Protein Split Products in Relation to Immunity and Disease. By Victor C. Vaughan, M. D., LL. D., Dean of the Department of Medicine and Surgery of the University of Michigan, Victor C. Vaughan, Jr., M. D., A. B., in charge of the Tuberculosis Work of the Detroit Board of Health and J. Walter Vaughan, M. D., A. B., junior attending Surgeon to Harper Hospital, Detroit. 12mo, 476 pages, illustrated. Cloth, \$3.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

A majority of the popular medical writings of a decade add but a trifle to the common store of knowledge, and, as a rule, they do little more than reveal what was already sufficiently obvious. This is to be practical. It is a way the age has, apparently, of compounding with its natural limitations. Fortunately, from time to time a book appears which is in vigorous contrast to the uniform monotony of its contemporaries, and, because it gives a more intimate and distinct view of nature, it irresistibly impels thought into new fields. The verdict of time probably will award this merit to Vaughan's work on the protein poison. At any rate, it may be doubted whether, in recent years, an equally solid and scholarly contribution to medical science has appeared. It is a credit in every way to American research.

single sentence in the highly significant preface: "The cell is not the unit of life; life is molecular." As one may correctly infer from this, the mode of treatment throughout is essentially chemical. And it is of the highest quality. The principal argument is based upon an impressive body of experimental data, the results of fifteen years' work, and a prodigious amount of labor has been expended in the pertinent literature. This is a combination, admittedly, which entitles one to write with the seal of authority. The authors have, however, in no instance exceeded in statement what was well justified by ascertained fact. The reasoning, of necessity, is close, but it is also perfectly intelligible. And that is saying a great deal, when it is considered that the problem of anaphylaxis, which, hitherto, has been "invested with all the sublimity that obscurity can bestow," is analyzed with ability of a high order. They plead for a greatly simplified conception of the mechanism of immunity.

In great part their data were derived from bulk analyses of various bacteria. It was not unusual, for example, to employ 500 grams of dried tubercle bacilli at a single experiment. These huge masses of bacteria, or "particulate proteins," as they are designated, they hydrolyzed, and afterwards studied the biological peculiarities of the cleavage products. Owing to its wide scope, it is not possible to discuss the work in detail; one or two facts must suffice. They were unable to detect cellulose. This of itself is surprising. But in all protein substances examined by them, bacterial or other, from the typhoid bacillus or egg-white, they found a common, central non-specific poison nucleus. This is known as the Vaughan poison. The lethal dose is half a milligram. Undoubtedly, in many biological reactions, this poison is a highly important factor. It is non-diffusible, and, therefore, when released, as it must be, in the peptic cleavage of protein, it usually is innocuous. In the parenteral digestion of a foreign protein, on the contrary, this poison is set free in the tissues where it is potent for harm.